

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A ~~heat or light~~ polymerizable resin material ~~comprising~~ consisting essentially of (based on a total of 100% by weight, exclusive of photoinitiator):

bisphenol A ethoxylate (1 to 4) dimethacrylate, about 70 to about 90%, by weight; ~~and~~

benzylmethacrylate, about 10 to about 20%, by weight; ~~and, optionally,~~

one or more stabilizing monomers, about 1 to 10% by weight, the stabilizing monomers being selected from the group consisting of trimethylolpropane trimethacrylate, isobornyl methacrylate, ethoxylate nonylphenol, 2-phenoxyethyl methacrylate-esters, ethoxylate nonyl phenol acrylate;

optionally one or more photochromatic dyes;

optionally one or more UV stabilizers;

optionally one or more dye stabilizers; and

one or more photoinitiators.

2. (Currently amended) The polymerizable resin material of claim 1, wherein the one or more stabilizing monomer comprises monomers include at least one of trimethylolpropane trimethacrylate, about 1 to about 10%, by weight; isobornyl methacrylate, about 1 to about 10%, by weight; and ethoxylate ethoxylated nonyl phenol acrylate, about 1 to about 10%, by weight; ethoxylate monyl phenol, about 1 to about 10%, by weight; and/or 2-phenoxyethyl methacrylate esters, about 1 to about 10%, by weight.

3. (Currently amended) The polymerizable resin material of claim 1, ~~further comprising~~ wherein the resin material includes at least one photochromatic dye.

4. (Currently amended) The polymerizable resin material of claim 1, ~~further comprising at least one wherein the photoinitiator material is not peroxide-based.~~

5. (Currently amended) The polymerizable resin material of claim 1, ~~further comprising wherein the resin material includes at least one dye stabilizer material.~~

6. (Currently amended) The polymerizable resin material of claim 1, ~~further comprising wherein the resin material includes at least one UV stabilizer material.~~

7. (Currently Amended) The polymerizable resin material of claim 1, wherein the resin material is cured when exposed to light in the wavelength range of about 368 to about 580 nm.

8. (Original) The polymerizable resin material of claim 7, wherein the resin material is cured when exposed to light for a period of time of about two and a half minutes or less.

9. (Currently Amended) The polymerizable resin material of claim 1 wherein the material includes comprising: bisphenol A ethoxylate (1 to 4) dimethacrylate, about 70 to 90%, by weight; benzylmethacrylate, about 10 to about 20%, by weight, and one or more of the following stabilizing monomers selected from the group of: trimethylolpropane trimethacrylate, about 1 to about 20%, by weight; isobornyl methacrylate, about 1 to about 20%, by weight; ethoxylate nonylphenol, about 1 to about 20%, by weight; 2-phenoxyethyl methacrylate esters, about 1 to about 20%, by weight; ethoxylate nonyl phenol acrylate, about 1 to about 20%, by weight; optionally one or more photochromatic dyes, about 0.001 to about 0.0001%, by weight; optionally one or more UV stabilizers, and about 1 to about 0.1%, by weight; optionally one or more dye stabilizers, about 0.1 to 0.00001%, by weight; optionally one or more dye stabilizer materials, about 1 to 5%, by weight; and, optionally, one or more photoinitiators, about 1 to about 5%, by weight.

10. (Currently Amended) The polymerizable resin material of claim 9, comprising consisting essentially of (based on a total of 100% by weight, exclusive of photoinitiator): bisphenol A ethoxylate (1 to 4) dimethacrylate, about 85.7%, by weight; benzylmethacrylate, about 8.58%, by weight; one or more of the stabilizing monomers trimethylolpropane trimethacrylate, about 2.6%, by weight; UV stabilizer, about 0.19%, by weight; and one or more photochromatic dyes, about 0.01456%, by weight; and one or more dye stabilizer stabilizers, about 2.9%, by weight; and photoinitiator, about 0.18%, by weight.

11. (Currently Amended) The polymerizable resin material of claim 9, ~~comprising~~ consisting essentially of (based on a total of 100% by weight, exclusive of photoinitiator): bisphenol A ethoxylate (1 to 4) dimethacrylate, about 85.7%, by weight; benzylmethacrylate, about 8.58%, by weight; trimethylolpropane trimethacrylate, about 2.6%, by weight; UV stabilizer, about 0.19%, by weight; one or more photochromatic dyes, about ~~0.01456%~~ 0.004%, by weight%; and one or more dye stabilizer stabilizers, about ~~2.9%~~ 2.91056%, by weight; ~~and UV stabilizer, about 0.18%, by weight.~~

12. (Currently Amended) The polymerizable resin material of claim 9, ~~comprising~~ consisting essentially of (based on a total of 100% by weight, exclusive of photoinitiator): bisphenol A ethoxylate (1 to 4) dimethacrylate, about 85.7%, by weight; benzylmethacrylate, about 8.58%, by weight; ethoxylate nonylphenol, about 2.6%, by weight; UV stabilizer, about 0.19%, by weight; one or more photochromatic dyes, about ~~0.01456%~~ 0.004%, by weight; and one or more dye stabilizer stabilizers, about ~~2.9%~~ 2.91056%, by weight; ~~and photoinitiator, about 0.18%, by weight.~~

13-14. (Canceled)

15. (Withdrawn) A method for making a plastic lens comprising
providing a front mold having a reflective, non-visible and non-ultraviolet (UV)
absorptive inner surface;
providing a back mold which is light transmissive;
disposing the front mold and the back mold in a light transparent gasket, the gasket
defining a lower inner edge for removably sealing the front mold to the gasket,
the gasket further defining an upper inner edge for holding the back mold in a
spaced apart relationship to the lower inner edge, the space between the upper
and lower inner edges defining a lens forming cavity when the front mold and
the back mold are positioned in the gasket;
the lower inner edge of the gasket extending in a radially inward direction around an
inner surface of the gasket, the lower inner edge having an upper surface which
is in a spaced apart relationship to the upper inner edge wherein the front mold
is removably sealed within and is held in position in the gasket by the lower
inner edge;
dispensing a predetermined quantity of a curable lens forming resin material according
to claim 1 in the lens forming cavity, ~~the resin material comprising bisphenol A~~

~~ethoxylate (1 to 4) dimethacrylate, about 70 to about 90%, by weight; and benzylmethacrylate, about 10 to about 20%, by weight; and, optionally, one or more stabilizing monomers; which resin material cures when exposed to heat or visible and/or UV light; and,~~

exposing the dispensed resin material in the lens forming cavity to a source of heat visible and/or UV light for a predetermined length of time at a predetermined intensity to cure the resin material without the need for cooling the resin material.

16. (Withdrawn) The method of claim 15, in which the one or more stabilizing monomers ~~are selected from the group consisting of: include~~ trimethylolpropane trimethacrylate, ~~about 1 to about 10%, by weight; isobornyl methacrylate, about 1 to about 10%, by weight; ethoxylate nonyl phenol acrylate, about 1 to about 10%, by weight; or ethoxylate ethoxylated nonyl phenol, about 1 to about 10%, by weight; and/or 2-phenoxyethyl methacrylate esters, about 1 to about 10%, by weight.~~

17. (Withdrawn) The method of claim 15, in which the resin material is exposed to light in the range of about 368 to about 580 nm.

18. (Withdrawn) The method of claim 17, in which the resin material is cured for a period of time of about two and a half minutes or less.

19. (Withdrawn) The method of claim 15, in which the light passes through a diffusion member before the light passes through and cures the lens forming resin material.

20. (Withdrawn) The method of claim 19, in which the resin material in the lens forming cavity is rotated about an axis extending perpendicular to the plane of the lens during the curing of the lens forming resin material.

21. (Withdrawn) The method of claim 15, in which the front mold comprises a nickel material coated with a hard carbon surface.

22. (Withdrawn) The method of claim 15, in which the back mold comprises a transparent glass material.

23. (Withdrawn) The method of claim 15, in which the lens forming resin material is exposed to heat or visible and/or UV light for a period of two and a half minutes or less.

24. (Withdrawn) The method of claim 15, in which the gasket is removed, exposing the edge of the cured lens material and a force is applied at least a portion of an edge of the front and/or back molds to remove the lens from the front and back molds.

25. (Withdrawn) The method of claim 15, in which the resin material ~~further comprises~~ includes at least one photochromatic dye material.

26. (Withdrawn) The method of claim 15, in which ~~the resin material further comprises at least one~~ the photoinitiator material is not peroxide-based.

27. (Withdrawn) The method of claim 15, in which the resin material ~~further comprises~~ includes at least one UV stabilizer ~~material~~.

28. (Withdrawn) The method of claim 15, in which the resin material ~~further comprises~~ includes at least one dye stabilizer ~~material~~.

29. (Withdrawn) The method of claim 15, in which the resin material comprises bisphenol A ethoxylate (1 to 4) dimethacrylate, about 70 to 90%, by weight; benzylmethacrylate, about 10 to about 20%, by weight, and one or more of the following stabilizing monomers selected from the group of: trimethylolpropane trimethacrylate, about 1 to about 20%, by weight; isobornyl methacrylate, about 1 to about 20%, by weight; ethoxylate nonylphenol, about 1 to about 20%, by weight; 2-phenoxyethyl methacrylate esters, about 1 to about 20%, by weight; ethoxylate nonyl phenol acrylate, about 1 to about 20%, by weight; optionally one or more photochromatic dyes, about 0.001 to about 0.0001%, by weight; optionally one or more UV stabilizers, and about 1 to about 0.1%, by weight; optionally one or more dye stabilizers, about 0.1 to 0.00001%, by weight; optionally one or more dye stabilizer materials, about 1 to 5%, by weight; and, optionally, one or more photoinitiators, about 1 to about 5%, by weight.

30. (Withdrawn) The method of claim 15, in which the resin material ~~comprises~~ consists essentially of (based on a total of 100% by weight, exclusive of photoinitiator): bisphenol A bisphenol A ethoxylate (1 to 4) dimethacrylate, about 85.7%, by weight; benzylmethacrylate, about 8.58%, by weight; one or more of the stabilizing monomers ~~trimethylolpropane trimethacrylate~~, about 2.6%, by weight; UV stabilizer, ~~about 0.19%, by weight~~; one or more

photochromatic dyes, ~~about 0.01456%, by weight; and one or more dye stabilizer stabilizers,~~
~~about 2.9%, by weight; and photoinitiator, about 0.18%, by weight.~~

31. (Withdrawn) The method of claim 15, in which the resin material ~~comprises~~ consists essentially of (based on a total of 100% by weight, exclusive of photoinitiator): bisphenol A ethoxylate (1 to 4) dimethacrylate, about 85.7%, by weight; benzylmethacrylate, about 8.58%, by weight; trimethylolpropane trimethacrylate, about 2.6%, by weight; UV stabilizer, about 0.19%, by weight; one or more photochromatic dyes, about ~~0.01456%~~ 0.004%, by weight%; and one or more dye stabilizer stabilizers, about ~~2.9%~~ 2.91056%, by weight; ~~and UV stabilizer, about 0.18%, by weight.~~

32. (Withdrawn) The method of claim 15, in which the resin material ~~comprises~~ consists essentially of (based on a total of 100% by weight, exclusive of photoinitiator): bisphenol A ethoxylate (1 to 4) dimethacrylate, about 85.7%, by weight; benzylmethacrylate, about 8.58%, by weight; ethoxylate nonylphenol, about 2.6%, by weight; UV stabilizer, about 0.19%, by weight; one or more photochromatic dyes, about ~~0.01456~~ 0.004%, by weight; one or more dye stabilizer stabilizers, about ~~2.9%~~ 2.91056%, by weight; ~~and photoinitiator, about 0.18%, by weight.~~

33-34. (Canceled)